

Seat No. : _____

DD-101

December-2021

B.C.A., Sem.-III

CC-203 : Objecte Oriented Concept & Programming

Time : 2 Hours]

[Max. Marks : 50

- Instructions :**
- (1) All Questions in Section – I carry equal marks.
 - (2) Attempt any **two** Questions from Section – I.
 - (3) Question – 5 in Section – II is compulsory.

Section – I

1. (A) Answer the following :
 - (i) What is reference variable ? How can we create it ? Explain with suitable example. 5
 - (ii) Write short note on function overloading with suitable example. 5(B) Answer the following :
 - (i) List and explain all access specifiers used in C++. 5
 - (ii) What is class ? How to create it ? Explain with suitable example. 5

2. (A) Answer the following :
 - (i) What is destructor ? List all characteristics of a destructor. 5
 - (ii) Explain array of objects with suitable example. 5(B) Answer the following :
 - (i) Explain all types of constructor by taking an example. 5
 - (ii) Write short note on : Dynamic memory allocation in C++. 5

3. (A) Answer the following :
 - (i) Explain multiple inheritance with suitable example. 5
 - (ii) Differentiate between early binding & late binding. 5(B) Answer the following :
 - (i) What is function overriding in inheritance ? Explain with example. 5
 - (ii) What is Virtual base class ? How to create it ? Explain by taking a suitable example. 5

4. (A) Answer the following :
- (i) How to do type conversion from class type to basic type ? Explain by example. **5**
 - (ii) Discuss class template by taking a suitable example. **5**
- (B) Answer the following :
- (i) Demonstrate the overloading of any one relational operator with example. **5**
 - (ii) How to overload function template with ordinary function ? Explain with example. **5**

Section – II

5. Attempt any **ten** : **10**
- (i) Friend function do not require :: operator while defining it outside the class. (True / False)
 - (ii) If we define member function inside class then by default it becomes inline function. (True / False).
 - (iii) Define data hiding.
 - (iv) A constructor that accepts _____ no. of parameters is called the default constructor.
 - (v) Private members in a class are never inherited. (True / False)
 - (vi) Memory size of an object is sum of size of each member data in a class. (True / False)
 - (vii) Function overloading is an example of _____ polymorphism.
 - (viii) A class having pure virtual function is called abstract class. (True / False)
 - (ix) Define pure virtual function.
 - (x) A function template can have more than one template type as arguments. (True / False)
 - (xi) What is the purpose of ifstream class ?
 - (xii) _____ is the base class of file stream class hierarchy.